## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



## - 1 Main ann mha 19 Shana (1914 a bhin) ann an 10 an mhair a 1914 a bhin ann an 1914 a bhin ann ann an 1914 a bh

(43) International Publication Date 6 May 2005 (06.05.2005)

(10) International Publication Number WO 2005/039506 A3

- (51) International Patent Classification<sup>7</sup>: C07D 413/00, 251/48, 239/02, 213/84, A61K 31/535, AOIN 43/66, 43/54, 43/40
- (21) International Application Number:

PCT/US2004/035470

- (22) International Filing Date: 22 October 2004 (22.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/514,432 60/551,429 24 October 2003 (24.10.2003) US 8 March 2004 (08.03.2004) US

- (71) Applicant (for all designated States except US): EX-ELIXIS, INC. [US/US]; 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94083-051 1 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHENG, Wei [CN/US]; P.O. Box 2223, South San Francisco, CA 94080 (US). CO, Erick, Wang [US/US]; 864 Boardwalk Place, Redwood City, CA 94065 (US). KIM, Moon, Hwan [US/US]; 1128 Oregon Avenue, Palo Alto, CA 94303 (US). KLEIN, Rhett, Ronald [US/US]; 1024 1/2 Clayton Street, San Francisco, CA 941 17 (US). LE, Donna, T. [US/US]; 1855 Ribisi Way, San Jose, CA 95131 (US). LEW, Amy [US/US]; 1232 Madruga Way, Milpitas, CA 95035 (US). NUSS, John, M. [US/US]; 16 Woodranch Circle, Danville, CA 94526 (US). XU, Wei [US/US]; 327 Glasgow Circle, Danville, CA 94056 (US).

- (74) Agents: ATKINS, Michael, J. et al; 170 Harbor Way, P.O. Box 511, South San Francisco, CA 94083-0511 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FT, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

(88) Date of publication of the international search report:
19 January 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## (54) Title: P70S6 KINASE MODULATORS AND METHOD OF USE

(57) Abstract: The invention provides compounds and methods for inhibition of kinases, more specifically p70S6 kinases. The invention provides compounds for modulating protein kinase enzymatic activity for modulating cellular activities such as proliferation, differentiation, programmed cell death, migration, chemoinvasion and metabolism. Compounds of the invention inhibit, regulate and/or modulate kinase receptor signal transduction pathways related to the changes in cellular activities as mentioned above, and the invention includes compositions which contain these compounds, and methods of using them to treat kinase-dependent diseases and conditions.

